



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,829	08/31/2001	Gary Ditlow	BUR9-2000-0146-US1	2812
21254	7590	11/15/2006	EXAMINER	
MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			TANG, KENNETH	
			ART UNIT	PAPER NUMBER
			2195	

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/943,829	Applicant(s) DITLOW ET AL.	
	Examiner Kenneth Tang	Art Unit 2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the Appeal Brief filed on 10/1/06. Prosecution has been reopened. Applicant's arguments have been fully considered but are now moot in view of the new grounds of rejections.
2. Claims 1-20 are presented for examination.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. In claim 7, the claimed invention is directed to non-statutory subject matter. In claim 7, the signal-bearing medium can refer to a transmission media such as digital and analog and communication links and wireless, for example, signals (see Applicant's Specification, page 26, lines 17-19). A claim that recites a signal encoded with functional descriptive material does not fall within any of the categories of patentable subject matter set forth in § 101.
4. First, a claimed signal is clearly not a "process" under § 101 because it is not a series of steps. The other three § 101 classes of machine, compositions of matter and manufactures "relate to structural entities and can be grouped as 'product' claims in order to contrast them with process claims." 1 D. Chisum, Patents § 1.02 (1994). The three product classes have traditionally required physical structure or material.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-4, 6-10, 12-16, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhaskaran et al. (hereinafter Bhaskaran) (US 6,601,084 B1) in view of Elabd (US 6,925,641 B1).**

6. As to claim 1, Bhaskaran teaches a method of performing an application with host processors on a network, comprising:

determining a list of all possible hosts on said network for performing said application (Load balancer maintains a list of servers) (col. 3, lines 3-4);

determining for each of said possible host a current capacity (weight) (col. 7, line 31) and a current utilization (current load) (col. 8, line 18);

calculating for each of said possible hosts, a difference between said current capacity and said current utilization (col. 8, lines 31-32); and

selecting from said listing of all possible hosts a listing of hosts based on sorting said calculated differences (sorted by lightest load, etc.) (col. 2, lines 66-67).

Bhaskaran is silent on parallel processing for a load balancer. Elabd teaches parallel processing for a load balancer (see Abstract, col. 4, lines 54-67 through col. 5, lines 1-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to

Art Unit: 2195

modify Bhaskaran's load balancer to include parallel processing because it would enable processing of data at high frequency (see Abstract, col. 4, lines 54-67 through col. 5, lines 1-8).

7. As to claim 2, Elabd teaches wherein said determination of a listing of processors is itself a parallel processing application (see Abstract, col. 4, lines 54-67 through col. 5, lines 1-8, etc.).

8. As to claim 3, Elabd teaches wherein said determination of a listing of processors is executed in real time concurrently with said parallel application (see Abstract, col. 4, lines 54-67 through col. 5, lines 1-8, etc.).

9. As to claim 4, Bhaskaran and Elabd teaches the selected listings of hosts and execution of a parallel application (see rejection above). In addition, it is inherent that the computer has an operating system that controls its execution.

10. As to claim 6, Bhaskaran teaches wherein said calculating difference between current capacity and a current utilization further comprises normalizing said difference (*col. 8, lines 5-39 through col. 9, lines 1-18*).

11. As to claims 7-10, they are rejected for the same reasons as stated in the rejection of claims 1-4.

12. As to claim 12, it is rejected for the same reasons as stated in the rejection of claim 6.

13. As to claim 13, it is rejected for the same reasons as stated in the rejection of claim 1.

The limitation of at least a subset is satisfied as the rejection of claim 1 refers to the entire set.

14. As to claims 14-16, they are rejected for the same reasons as stated in the rejection of claims 2-4.

15. As to claim 18, it is rejected for the same reasons as stated in the rejection of claim 6.

16. As to claim 19, it is rejected for the same reasons as stated in the rejection of claim 13.

17. As to claim 20, it is rejected for the same reasons as stated in the rejection of claims 3 and 4.

18. Claims 5, 11, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhaskaran et al. (hereinafter Bhaskaran) (US 6,601,084 B1) in view of Elabd (US 6,925,641 B1), and further in view of Overby, Jr. et al. (hereinafter Overby) (US 6,016,503).

19. As to claim 5, it is rejected for the same reasons as stated in the rejection of claim 1. In addition, Bhaskaran and Elabd are silent on the job queue or list containing quantification data but fails to explicitly teach it containing a history. However, Overby teaches calculating and

Art Unit: 2195

predicting utilization and utilization differential based upon historical utilization (*col. 2, lines 47-51, col. 3, lines 54-61, col. 5, lines 22-23*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Overby with Elabd and Bhaskaran because the historical information can be used to know when over-utilization has occurred, and therefore, better manage the resource (*col. 2, lines 14-17, 47-51, col. 5, lines 22-23*).

20. As to claims 11 and 17, they are rejected for the same reasons as stated in the rejection of claim 5.

Response to Arguments

21. Applicant's arguments have been fully considered but are now moot in view of the new grounds of rejections.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2195

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt
11/8/06


MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100